

CLAIMS

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1. A method of operating a packet-switched network, comprising the following steps:
 - a) at each node, repeatedly examining status of links connecting to the node; and
 - b) if a change in status is detected by a node, flooding the network with news of the change in messages which are self-propagating and self-terminating.
2. Method according to claim 1, wherein nodes receiving the self-propagating messages do not acknowledge receipt to another node.
3. Method according to claim 1, and further comprising the following step:
 - c) if a node detects no change in status of a link for a predetermined interval T2, then flooding the network with news of the status existing at time T2.
4. Method according to claim 3, and further comprising repetition of the steps of paragraphs (a) and (b) after that of paragraph (c).
5. A method of operating a packet-switched network,

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comprising the following steps:

- a) generating reports of status of links in the network;
- b) propagating the reports to all nodes in the network;
- c) at some nodes, replacing the propagating reports, by new reports;
- d) propagating the new reports to all nodes in the network; and
- e) repeating steps (c) and (d).

6. A method of operating a packet-switched network, comprising the following steps:

- a) at an originating node,
 - i) generating a message which reports a change in status of a link;
 - ii) transmitting the message to the neighbors of the originating node;
- b) at each neighbor,
 - i) storing the message if the neighbor does not know of the change; and
 - ii) transmitting the message to neighbors of the neighbor.

7. Method according to claim 6, wherein the neighbors do not transmit acknowledgement of receipt of the message.

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8. Method according to claim 6, wherein the message is assigned an age, and the neighbor of paragraph (b) decrements the age, prior to transmission to the neighbor's neighbors.

9. Method according to claim 8, wherein the neighbors of the neighbor further decrement the age.

10. Method according to claim 6, wherein the neighbor of paragraph (b) discards the message if the neighbor has previously received the message.

11. A method of operating a packet-switched network, comprising the following steps:

- a) at an originating node,
 - i) generating a message which reports a change in status of a link;
 - ii) transmitting the message to neighbors of the originating node;
- b) propagating the message, until all nodes have received the message; and
- c) after all nodes have received the message, taking steps which cause termination of propagation of the message, without informing the originator of receipt of the message by nodes.

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12. Method according to claim 11, wherein the steps of paragraph (c) include the steps of replacing the message with a newer message.

